

IN THE CLAIMS

Claims 1-9 (Canceled)

Claim 10 (Currently Amended): An apparatus comprising:

a memory to store a code segment, the code segment having a set of instances of a parallel construct, each instance associated with a task; and

a set of processors coupled to the memory, the set of processors to process the code segment, to encounter one instance while processing the code segment, to generate a second code segment corresponding to the instance, the second code segment comprising a plurality of threads ~~when executed~~

a first thread that when executed to determine if the task associated with the one instance has been undertaken by another thread by ~~a first thread that when executed to compare~~ comparing a first private value of the first thread and a second private value of the first thread,

if the task has not been undertaken by the other thread, to undertake the task and to indicate with a shared value the undertaking of the task, and

to indicate with the first private value the instance.

Claim 11 (Canceled)

Claim 12 (Previously Presented): The apparatus of claim 10 further comprising the set of processors to maintain the second private value, the second private value being a boundary to access the shared value.

Claim 13 (Currently Amended): A system comprising:

a translating unit to translate a code, the code having an instance of a parallel construct, the instance associated with a task, the translating unit to generate a code segment, ~~the code segment when executed to cause each of a plurality of threads:~~

the code segment when executed to cause each of a plurality of threads: to

determine if the task has been undertaken by another thread by a ~~first thread, which when executed to compare~~ comparing a first private value of the ~~first thread~~ and with a second private value of the ~~first thread~~,

if the task has not been undertaken by another thread, to undertake the task and to indicate with a shared value the undertaking of the task, and

to indicate with the first private value the instance;

a linker unit coupled to the translating unit, the linker unit to link the translated code with a library; and

a set of processors coupled to the translating unit and the linker unit, the set of processors to host the plurality of threads.

Claim 14 (Previously Presented): The system of claim 13 wherein to determine if the task has been undertaken by the other thread comprises a comparison of the first private value with the shared value.

Claim 15 (Previously Presented): The system of claim 13 wherein the code segment to cause each of the set of threads to perform operations further comprising to maintain the second private value, the second private value being a boundary for the second private value's corresponding one of the set of threads to access the shared value.

Claim 16 (Currently Amended): A machine-accessible medium containing instructions that, when executed, cause a machine to:

receive a first code segment, the first code segment having a set of instances of a parallel construct, each of the instances comprised of a task; and transforming the first code segment to a second code segment, ~~the second code segment~~

the second code segment that when executed: to initialize a shared value for each of a team of threads, the shared value to indicate a most current instance encountered by one of the threads, to initialize a first private value and a second private value for each thread, the first private value to indicate one of the instances encountered by the first private value's corresponding thread, to determine if the task of the ~~one~~ most current instance has been undertaken by ~~another thread by a first thread~~ comparing a first private value of the first thread and a second private value of the first thread, upon determining the task has not been undertaken ~~by the other thread~~, undertaking the task and indicating with the shared value the undertaking of the task, to update the shared value with the team of threads, and to update the private value of each of the team of threads with the private value's corresponding thread.

Claim 17 (Canceled)

Claim 18 (Previously Presented): The machine-accessible medium of claim 16 wherein update the shared value comprises incrementing the shared value when one of the threads undertakes the task of one instance.

Claim 19 (Previously Presented): The machine-accessible medium of claim 16 wherein update the private value comprises incrementing the private value when the private value's corresponding thread encounters one instance.

Claim 20 (Previously Presented): The machine-accessible medium of claim 16 further comprising instructions that, when executed, cause a machine to:

update the second private value for each of the team of threads, the second private value being a boundary for accessing the shared value.

Claim 21 (Currently Amended): A machine-accessible medium containing instructions that, when executed, cause a machine to:

receive a first code segment, the first code segment having a set of instances of a parallel construct, each of the set of instances being associated with a task;
and

for each instance, to generate a second code segment, the second code segment that when executed to:

encounter one instance,

determine if the task of the one instance has been undertaken by ~~a second thread by the first thread~~ comparing a first private value of the first thread and a second private value of the first thread,

upon determining the task has not been undertaken ~~by the second thread~~,
undertaking the task and using a shared value to indicate the undertaking of the task,

using the first private value of the first thread to indicate the one instance,
and

maintain the second private value of the first thread, the second private value being a boundary for accessing the shared value.

Claim 22 (Previously Presented): The machine-accessible medium of claim 21 wherein determining if the task of the one instance has been undertaken by the second thread comprises the first thread comparing the shared value and its first private value.

Claim 23 (Canceled)

Claim 24 (Previously Presented): The machine-accessible medium of claim 21 further comprising the second thread maintaining a third private value and a fourth private value, the third private value to indicate a second one of the set of instances encountered by the second thread and the fourth private value to indicate the second thread's boundary for accessing the shared value.